

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

COOPER TECHNOLOGIES CO.

vs.

THOMAS & BETTS CORP.

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CASE NO. 2:06-CV-242

**MEMORANDUM OPINION AND ORDER**

**1. Introduction**

In this case, Cooper contends that Thomas & Betts infringes various claims of U.S. Patent Nos. 6,504,103 and 6,984,791. The ‘791 patent issued from an application that was a continuation of the application that underlies the ‘103 patent. The patents-in-suit share a common written description.<sup>1</sup> The ‘103 patent was filed on March 20, 1997, and issued on January 7, 2003. The ‘791 patent was filed on April 14, 2003, and issued on January 10, 2006. The ‘791 patent is subject to a terminal disclaimer. The patents-in-suit are entitled, “Visual Latching Indicator Arrangement for an Electrical Bushing and Terminator.”

**2. Background of Technology**

The patents-in-suit are directed to the interconnection of components used in power distribution systems. In a power distribution system, electrical lines enter a transformer carrying a high voltage of electricity to facilitate power distribution. The transformer splits the high voltage power source into a number of lower voltage feeds for distribution to end-users, such as residential home owners. The transformer is connected to electrical lines with a two-piece electrical coupling.

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<sup>1</sup> For ease of reference, all cites to the written description of the patents-in-suit will be directed to the ‘103 patent.

The first piece of the coupling, known as the bushing, is fixed to the transformer. The second piece of the coupling, known as the terminator, is connected to the end of power lines that terminate at the transformer. When establishing the power distribution circuit, an operator must connect the terminator of the power line to a bushing at the transformer. The bushing and the terminator are preferably connected from a distance of about 5 feet, by use of a long stick, because the connection is typically made under load conditions.

The bushing portion of the electrical coupling includes a tapered tongue, and the terminator portion of the coupling includes a cavity which is known as a socket. The terminator and bushing are connected by placement of the tongue within the socket. The terminal end of the tongue includes a latching groove for interconnection with a corresponding latching ring that is present on an inner portion of the socket. The latching groove of the tongue interconnects with the latching ring of the socket to positively connect the components. The point of interconnection is hidden within the confines of the socket's cavity, and is achieved when the tongue of the bushing is placed within the socket to a prescribed depth.

It is critical to ensure that the bushing and terminator are positively latched when the components are connected because, absent positive latching, arcing may occur at the transformer which may injure the operator or cause fire. The required distance between the operator and the coupling during latching, however, makes it difficult for the operator to determine when positive latching is achieved. The invention is directed to an improved coupling that provides visual indication of positive latching. For example, the bushing may include a color band that is formed on a portion of the outer circumferential surface of the tongue. The color band is arranged at a location on the tongue such that the color band becomes completely covered by the socket when the

tongue of the bushing is sufficiently inserted within the socket to provide for positive latching of the coupling. The invention thereby provides a visual indication to notify an operator of when the tongue has been inserted into the socket to a prescribed depth.

### **3. General Principles Governing Claim Construction**

“A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention.” *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999). Claim construction is an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

To ascertain the meaning of claims, the court looks to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. Under the patent law, the specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. A patent’s claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* “One purpose for examining the specification is to determine if the patentee has limited the scope of the claims.” *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee’s claims. Otherwise, there would be no need for claims. *SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). And,

although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Scis., Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

This court's claim construction decision must be informed by the Federal Circuit's decision in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that "the *claims* of a patent define the invention to which the patentee is entitled the right to exclude." *Id.* at 1312 (emphasis added) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* The ordinary and customary meaning of a claim term "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.* as of the effective filing date of the patent application." *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention. The patent is addressed to and intended to be read by others skilled in the particular art. *Id.*

The primacy of claim terms notwithstanding, *Phillips* made clear that "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of "a fully integrated written instrument." *Id.* at 1315 (quoting *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for

construing the claims. *Id.* at 1314-17. As the Supreme Court stated long ago, “in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.

Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. The prosecution history helps to demonstrate how the inventor and the PTO understood the patent. *Phillips*, 415 F.3d at 1317. Because the file history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence. That evidence is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims.

*Phillips* rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed.

Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Id.* at 1319-24. The approach suggested by *Tex. Digital*—the assignment of a limited role to the specification—was rejected as inconsistent with decisions holding the specification to be the best guide to the meaning of a disputed term. *Id.* at 1320-21. According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of “focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of the claim terms within the context of the patent.” *Id.* at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.* What is described in the claims flows from the statutory requirement imposed on the patentee to describe and particularly claim what he or she has invented. *Id.* The definitions found in dictionaries, however, often flow from the editors’ objective of assembling all of the possible definitions for a word. *Id.* at 1321-22.

*Phillips* does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at 1323-25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant.

#### **4. Discussion**

##### **A. a color band**

Cooper's proposed construction of this term is "a single annular color band of a defined width." Thomas & Betts' proposed construction has changed from that announced in the Joint Claim Construction and Prehearing Statement ("JCCPS"). Thomas & Betts' original proposed construction of this term was "a color on the surface of the bushing forming an edge indicator or witness line." Thomas & Betts' current proposed construction is "a continuous or interrupted color around the periphery of the tongue forming an edge indicator or witness line."

Cooper contends that the asserted claims of the patents-in-suit should be limited to a tongue having one and only one visual indicator, *e.g.* a color band. Cooper argues that the patentees' exclusive use of the phrases "a color band" and "said / the color band" in the claims, specification, and file history, combined with the depiction of only one color band in the figures, indicate that the claims at issue comprise a single color band. Cooper also argues that other claim language supports its construction. For example, the claims define a "first radial distance" at the color band, which is larger than all other radial distances between the color band and the free end of the tongue. Cooper contends that this claim language is satisfied only if the claims are limited to one and only one color band. For the reasons discussed below, the court rejects Cooper's arguments.

Cooper contends that the use of the terms "a color band" and "said / the color band" throughout the specification and prosecution history supports limiting the asserted claims. This contention conflicts with prevailing law, which emphasizes that use of the indefinite article "a" or

“an” in a comprising claim is meant to mean “one or more.”<sup>2</sup> *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, No. 2007-1262, slip op. at 7 (Fed. Cir. Jan. 15, 2008). This principle is “best described as a rule, rather than merely as a presumption or even a convention. The exceptions to this rule are extremely limited,” and a patentee must “evidence a clear intent to limit ‘a’ or ‘an’ to ‘one.’” *Id.* An exception to this general rule “only arises where the language of the claims themselves, the specification, or the prosecution history necessitate a departure from the rule.” *Id.* A patentee’s subsequent use of “the” or “said” in a claim to “refer back to the same claim term does not change the general plural rule, but simply reinvokes that non-singular meaning.” *Id.*

Cooper cites to *Insituform Technologies, Inc. v. Cat Contracting, Inc.*, 99 F.3d 1098 (Fed. Cir. 1996) in support of its contention. In *Insituform*, the inventor claimed a process for impregnating curable resin within a layer of resin absorbent material disposed along the inner surface of a flexible tube. The claim at issue in *Insituform* included the placement of a mass of curable resin sufficient to impregnate the entire resin absorbent layer in one end of the tube. The tube was thereafter squeezed between two members to force the resin into the resin absorbent material, and push the excess resin to toward the far end of the tube. This process was preferably performed under vacuum, and the claim therefore included several steps for establishing a vacuum within the lumen of the tube. First, the claim required the formation of a window in the tube at a distance not far from the curable resin. A cup was then placed over the window, and a vacuum was established by evacuating the tube through the cup. Once the resin reached the cup, the cup was removed from the window, the window was sealed, a new window was formed downstream from the curable resin, and the vacuum was re-

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<sup>2</sup> The claims at issue use the word “including” which, as a general rule, is construed synonymously with “comprising.” *In re Vagedas*, 976 F.2d 748 (Fed. Cir. 1992) (unpublished).

established through the new window via the same cup. *See id.* at 1104. The claim at issue required the vacuum forming steps to be repeated, as necessary, until the entire tube was impregnated with resin.

In *Insituform*, the iterative nature of the vacuum forming steps was emphasized by Wood, the applicant, during prosecution. The Examiner rejected Wood's original claims over a prior art patent to Everson that taught a similar resin impregnation process. Everson's process, however, established a continuous vacuum within the tube's lumen by attaching a single vacuum source at the far end of the tube. *Id.* at 1102-04. In response to this rejection, Wood amended his claims into the allowable form discussed above and distinguished Everson by stating

Everson's method is ineffective when dealing with long lengths of tube because that method requires an exceedingly large suction compressor. Applicant's method solves the problem of impregnating long lengths of tubing by forming a window in the tube's impermeable skin, drawing the resin to the region of the window by a vacuum while squeezing the tube to force the resin to flow toward the evacuated region, sealing the window, and repeating the process at another window farther downstream. Thus by iterating and reiterating that process, the resin is drawn along to impregnate the entire length of tube. It is submitted that applicant has taught an improvement upon Everson's method which makes feasible the impregnation of long tube lengths and that the grant of a patent on that improvement is merited.

*Id.* at 1104. Therefore, Wood, through the intrinsic record, clearly indicated his desire to limit the claimed invention to a discontinuous, batch-like, vacuum process. In view of his clear desire, the Federal Circuit limited the claimed process to the use of only one vacuum cup. *Id.* at 1106; *see Scanner Techs. Corp. v. ICOS Vision Sys. Corp., N.V.*, 365 F.3d 1299, 1303-06 (Fed. Cir. 2004).

Turning to the present case, the court concludes that the language of the claims, the specification, and prosecution history do not "necessitate a departure from the rule" which

emphasizes that the use of the indefinite article “a” in a comprising claim means “one or more.” *See Baldwin Graphic Sys.*, No. 2007-1262, slip op. at 7. Unlike *Insituform*, the claims at issue in this case fail to include limitations that evidence a clear intent to limit the invention to one and only one color band. The use of the indefinite article “a” and the subsequent use of the definite article “the” and “said” is not sufficient. *Id.* Similarly, Cooper’s contention that “the first radial distance” as defined and used in the claims so limits the invention is also incorrect. For example, a “second color band” might be placed at a “second radial distance” greater than the “first radial distance” of the “color band,” *e.g.* at a location on the tongue closer to the end of the bushing that is connected to the transformer. Under this arrangement, all radial distances between the “first radial distance” and the free end of the tongue remain less than the “first radial distance.” Additionally, under such arrangement, positive latching would be indicated by the covering of both bands by the socket of the terminator. The court has also reviewed the patentees’ written description and prosecution history, and has failed to find evidence of any intention by the patentees to limit their invention to one and only one color band. *See Scanner Techs. Corp.*, 365 F.3d at 1303-1306.

Cooper also contends that the color band should be “annular” and have a “defined width.” Cooper supports its construction with the written description, which states “[t]he visual indicator 114 on the bushing is in the form of an annular color band of width W formed directly on the outer surface of the tongue 118 of the bushing.” ‘103 patent at 4:28-30. Thomas & Betts contends that the band is “continuous or interrupted.” Thomas & Betts supports its construction with the written description, which states “[t]he band 114 is preferably circumferentially continuous, but it could be interrupted as well . . . .” ‘103 patent at 4:61-63. In view of the intrinsic record, the court rejects each parties’ proposed construction and defines the term “color band” to mean “a continuous or interrupted

annular colored indicator having a width.”

**B. a colored indicator**

Cooper’s proposed construction is “a single colored mark.” Thomas & Betts’ counter-construction is “an edge indicator or witness line formed by a color on the surface of the tongue.” The difference between claims 1 and 9 of the ‘791 patent is the use of the term “colored indicator” in claim 9 in the place of the term “colored band,” as presented in claim 1. As such, the two claim terms are presumed to have different meanings. *See Tandon Corp. v. U.S. Int’l Trade Comm’n*, 831 F.2d 1017, 1023 (Fed. Cir. 1987).

The patentees’ written description states “[a] second embodiment of the invention, depicted in FIGS 5 and 6, involves a loadbreak elbow terminator 100 and a bushing 112, wherein a visual indicator or mark 114 is provided on the bushing to cooperate with a visual indicator 116 provided on the terminator.” ‘103 patent at 4:19-23. The patentees, however, refer to the visual indicator depicted in figures 5 and 6 as both a band and a mark. *Id.* at 4:19-42. A band is therefore similar to a mark. The court again rejects Cooper’s attempt to limit this term to a single mark and construes the term “colored indicator” to mean “colored mark.”

**C. outer circumferential surface**

The defendant’s proposed construction of this term is “outer peripheral surface.” The plaintiff contends that no construction of this term is necessary. The court agrees with Cooper and concludes that no construction of this term is necessary. The court rejects, however, the defendant’s suggestion that “peripheral” is synonymous with “circumferential.”

**D. a color band formed flush on a portion of an outer circumferential surface of said tongue**

Cooper's proposed construction of this term is "a color band formed without indentation on a portion of an outer circumferential surface of said tongue such that an operator has an unobstructed view of the color band." Rather than proposing a construction of this entire term, Thomas & Betts contends that the term "flush" is the only term that needs construction. The parties agree that the term "flush" means "without indentation." The court agrees with Thomas & Betts and construes the term "flush" to mean "without indentation." The remainder of this term needs no construction.

**E. prescribed depth**

Cooper's proposed construction is "a sufficient length for positive latching to occur." Thomas & Betts' counter-construction is "depth at which the bushing is completely inserted into the terminator." The court concludes that the term "prescribed depth" means "the depth at which the colored band / indicator is completely disposed within the socket."

**F. radially covered completely**

Cooper's proposed construction of this term is "completely disposed within the socket portion." Thomas & Betts' counter-construction is "no longer visible from a perpendicular direction." The court concludes that this term means "completely disposed within the socket."

**G. tongue**

Cooper's proposed construction of this term is "portion of the bushing inserted into the socket of the terminator." Thomas & Betts contends that no construction of this term is necessary. The court construes this term to mean "a part of the bushing component, at least a portion of which is insertable within the socket."

**H. visual indication of positive latching**

The parties agree that this term means “the color band or colored indicator is at least partly visible when there is no positive latching and is invisible when there is positive latching.”

**I. radial distance / radial spacing / radially spaced**

Thomas & Betts’ proposed construction of these terms is “perpendicular distance,” “perpendicular spacing,” and “perpendicularly spaced,” respectively. Cooper contends that no construction of these terms is necessary. The court agrees with Cooper and concludes that no construction of these terms are necessary. The court rejects, however, Thomas & Betts’ suggestion that “radially” is synonymous with “perpendicularly.”

**J. said prescribed length**

Thomas & Betts contends that this term is indefinite because it lacks antecedent basis. The court rejects this argument and concludes that “said prescribed length” is synonymous with “said prescribed depth.”<sup>3</sup>

**K. busing**

Thomas & Betts contends that this term is indefinite, apparently because of a typographical error. The court rejects this contention, and concludes that the term “busing” is synonymous with the term “bushing.” *See Novo Indus., L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1354 (Fed. Cir. 2003).

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<sup>3</sup> Although the Examiner initially argued that the term lacked antecedent basis, he subsequently allowed the claim. The court concludes that one of skill in the art reading the patent would equate the two terms.

**5. Conclusion**

The court adopts the above constructions. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the constructions adopted by the court.

SIGNED this 15th day of February, 2008.

  
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CHARLES EVERINGHAM IV  
UNITED STATES MAGISTRATE JUDGE